

**Applicant:** Steven Jeffrey Goldberg  
**Application No.:** 10/731,653

**REMARKS/ARGUMENTS**

Claims 1-32 are pending in this application.

Claims 1, 2, 4-6, and 9-11 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,131,021 to Lussenhop et al. (hereinafter "Lussenhop") in view of U.S. Patent Application Publication No. 2004/0192290 to Muthuswamy et al. (hereinafter "Muthuswamy").

Claims 17, 27, and 28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Lussenhop in view of Muthuswamy and further in view of U.S. Patent No. 5,946,612 to Johansson.

Claims 7, 8, 18, 19, and 22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Lussenhop in view of Muthuswamy and further in view of U.S. Patent Application Publication No. 2003/0064744 to Zhang.

Claims 20 and 21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Lussenhop in view of Muthuswamy and further in view of Zhang and Johansson.

Claims 2, 3, and 12-15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Lussenhop in view of Muthuswamy and further in view of prior art cited by the Examiner through Official Notice.

Claims 23-26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Lussenhop in view of Muthuswamy and further in view of Zhang and prior art cited by the Examiner through Official Notice.

Claims 29-32 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Lussenhop in view of Muthuswamy and further in view of Johansson and prior art cited by the Examiner through Official Notice.

**A. The References do not Teach or Suggest the Claimed Invention**

In all of the above rejections, Lussenhop was cited for teaching the activation of a “performance enhancement”. The applicant respectfully disagrees with this broad interpretation of the term performance enhancement. Accordingly, the specification and independent claims 1, 4-9, 18 and 27 are currently amended to further define the term “performance enhancement”; no new matter has been added.

Lussenhop relates to a method for extending the measurable radio signal strength indicator (RSSI) range. As shown in Figure 4 and described at column 6, lines 29-41, Lussenhop discloses a method that first checks the RSSI value. If the RSSI value is within a measurable range, then the call in progress is continued. If the RSSI value is outside the measurable range, an attenuation value is determined and is applied to the incoming signal to get the RSSI value into range. The

attenuation value is calculated by measuring signal strength values with an amplifier turned on and off, and then calculating the difference between the two measured values (see Figure 7 and column 7, lines 38-56).

The attenuation value is used by the system to determine whether a call can be maintained. If the measured RSSI value is out of the measurable range even after attenuating the signal, the channel and/or the base station must be changed (see column 6, lines 41-50). Lussenhop does not disclose using any type of performance enhancement as defined in the specification at paragraph [0027]. As noted above, the amplifier is being switched on and off to determine an attenuation value which is used for a fundamental operation of the mobile device. Thus, "switching over the component [of the radio telephone] into the operating state of attenuation" (column 3, lines 55-56) is not analogous to activating a performance enhancer because performance at any quality level is not attainable without attenuation.

It is further submitted that none of the additional cited references teach the activation and deactivation of any type of performance enhancement within the mobile device.

Muthuswamy relates to displaying a call quality (CQ) indicator on a mobile device, showing the status of links on both ends of a call (i.e., between the originating device and the base station, and between the destination device and its

base station); see paragraph 0039. All of the channels involved in a call are evaluated, including the to and from channels between the originating device and the base station, and the to and from channels between the destination device and its base station (paragraph 0024). The CQ indicator can be based on several different metrics (paragraph 0040).

However, Muthuswamy does not disclose measuring the operating results with a performance enhancement inactive at the WTRU and then activating the enhancement in the WTRU. Further, there is no suggestion or motivation to combine the teachings of Lussenhop with the teachings of Muthuswamy. The attenuation value in Lussenhop is used by the system to maintain fundamental internal operations of the WTRU and there would be no motivation to display this value to the user. The display disclosed in Muthuswamy is helpful to a user by providing "feedback on an overall call quality". Both Lussenhop and Muthuswamy relate to displaying information regarding fundamental operations of the wireless device to the user. These fundamental operations are not the same as the performance enhancements as defined in the present invention.

Zhang relates to a system for simultaneously performing power control and rate control, to minimize the total power consumption of all users in a cell (paragraph 0023). The system includes a base station having a signal to interference ratio (SIR) measurement unit and a SIR comparator. The SIR

comparator generates a transmit power control signal to instruct a mobile device to adjust its transmission power based on the results of the comparison (paragraph 0033). While Zhang teaches measuring operating results and comparing operating results at the base station, Zhang does not teach comparing the operating results at the base station with a performance enhancement inactive at the WTRU, and comparing them to operating results with the performance enhancement active.

Further, there is no suggestion or motivation to combine the technique of Lussenhop, discussed above, with the teachings of Zhang. It would be impossible to measure the operating results at the base station, as taught by Zhang, with the attenuation active and inactive because communication is only possible in one state of attenuation and not the other. Therefore, there is no motivation or suggestion to combine the references and the combination, even if made, would not yield the present invention.

Johansson relates to a method and apparatus for estimating traffic volume in a communication system. Johansson extrapolates measured results to obtain an estimate of the traffic volume at a given time. In order to take the measurements, the power regulation at the mobile devices is turned off (column 5 lines 10-16). The measurements are taken and recorded (column 5, lines 26-30). Then the measurements are extrapolated (column 5, lines 30-32 and 54-60; column 4 lines 49-59; and column 9, lines 10-18).

Johansson does not disclose an extrapolation that includes determining what a result would be if the power regulation was active. Further, Johansson teaches away from a combination with Lussenhop. Lussenhop teaches turning a power amplifier on and off, while Johansson teaches disabling mobile power regulation.

Similarly, Johansson teaches away from a combination with Musthuswamy. Musthuswamy teaches comparing the signal quality of two radio frequency channels, and controlling the transmit power of those channels. Johansson teaches the opposite by disabling the mobile power regulation.

Similarly, Johansson teaches away from a combination with Zhang. Zhang relates to a system for simultaneously performing power control and rate control, to minimize the total power consumption of all users in a cell (paragraph 0023). Conversely, Johansson teaches the opposite by disabling the mobile power regulation.

Accordingly there is no suggestion or motivation to combine the references, and the combination of Musthuswamy, Lussenhop, Johansson, and Zhang would not yield the present the present invention.

**B. The Invention is not Obvious due to Secondary Considerations.**

The present invention creates a solution to “long felt but unsolved needs” associated with developing, marketing, and implementing performance

enhancements. In evaluating an obviousness rejection, an indication of non-obviousness may be shown by a "long felt but unsolved need." *Graham v. John Deere*, 383 U.S. 1, 148 USPQ 459 (1966). Since the beginning of the wireless communications industry, manufacturers have invested significant amounts of money into the development of technologies that will enhance the performance of WTRUs. However, many of these developments go unnoticed or unrealized by the user. The industry has not received a full return on the investment of developing performance enhancements because some users are unwilling to continue to pay for enhancements that are not easily noticeable. Accordingly, there has been a long felt and unsolved need to justify, in the minds of the users, the costs associated with a particular enhancement technology.

The present invention demonstrates to users that a WTRU having a particular enhancement technology is providing superior performance over a WTRU without such technology. In practice, users that are aware of the benefits of a particular technology will be more willing to pay for the technology, and users without the technology will be more willing to invest in a service or WTRU capable of utilizing the enhancing technology.

Accordingly, the present invention provides a solution to a long felt but unsolved need in the telecommunications industry and is separately patentable over all of the prior art.


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Based on the foregoing amendments and remarks, none of the cited references, either alone or in combination, discloses the features recited in claims 1-32. It is respectfully submitted that the amendment and remarks made herein place pending claims 1-32 in condition for allowance. Accordingly, entry of this amendment as well as reconsideration and allowance of pending claims 1-32 are respectfully requested.

If the Examiner does not believe that the claims are in condition for allowance, the Examiner is respectfully requested to contact the undersigned at 215-568-6400.

Respectfully submitted,

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